Remarks

Reconsideration of this application is requested. By this response to the Office Action dated September 20, 2005, claims 1-5 and 8 have been amended. Claims 1-6, 8-10 and 15-18 remain in the application. A listing of these claims and the actions taken is included in this amendment.

Response to the 35 U.S.C. §102(e) Rejection

The Office Action rejected claims 1-6 and 8-10 under 35 U.S.C. §102(e) as being anticipated by Lindenmeier (U.S. patent 6,768,457).

Claims 1-6

Applicants' amended claim 1 recites sequentially evaluating in one frame a first antenna to receive a first preamble symbol and a second antenna to receive a second preamble symbol where the first and second antennas are switched to an input of a receiver in the mobile device to ascertain a signal quality; and selecting one antenna from the first and second antennas that provides a higher signal quality to be a receiving antenna of the mobile device.

Lindenmeier teach in the figures a receiver having a plurality of antennas switched on so that individual antennas can be evaluated, one after the other, with respect to level. A reception level testing device 25 shown in Fig. 1a is used to determine the most favorable reception signal. Lindenmeier teach in column 10, lines 26-37, that a test cycle process is used having a test cycle time spacing T_z.

FIGs. 3a and 3b illustrate the test cycle process and the test cycle time spacing T_z. Note that the test cycle time spacing T_z is not based on framed data, but rather on a time set in accordance with a maximum driving speed of the vehicle on which the antennas are mounted. The example recites a test cycle time spacing T_z of 250 usec for a driving speed of 100 km/h. Note that this teaching by Lindenmeier bases evaluations of the antennas on a series of repeating symbols and not on a frame having preamble symbols.

In contrast to Applicants' claimed invention that recites sequentially evaluating in one frame a first antenna to receive a first preamble symbol and a

second antenna to receive a second preamble symbol, Lindenmeier does not rely on using first and second preamble symbols in a frame to evaluate the multiple antennas. Lindenmeier states in the BACKGROUND portion of the specification in column 1, lines 47-61, that preamble signals are transmitted outside the time slot provided for the data transmission, and that burst data is preferred. Lindenmeier's quote in lines 58-60 is "The most favorable antenna signal can be obtained exclusively depending on the occurrence of the bust signal..." Lindenmeier concludes that the preamble signal is a "drawback".

Lindenmeier states (column 2, lines 5-7) that using the preamble signal for the antenna election would lead to a reduction of the effective rate of transmittable data. Lindenmeier further states that his invention is based on the document EP1041736 (see column 1, lines 47-48) and is clear in his conclusion that "the updating of the antenna selection only takes place in response to the transmitted burst signal, and consequently at large time intervals" (lines14-17).

A look at the document EP1041736 confirms that a diversity receiver is taught that measures a reception level, delay spread and a phase of a burst OFDM modulated signal received by a plurality of antennas (ABSTRACT). In this document Yamamoto et al. teach four embodiments to complete the desired measurements, then in paragraphs [0062] and [0064] also teach a power management feature that is applicable to all of the embodiments. Namely, this power management feature teaches that all low noise amplifiers connected to the antennas, except for the one selected amplifier, may be shut down until the burst signal is detected. This feature shows that the prior art reference does not depend on using preamble symbols to determine signal quality and certainly precludes using Applicants' claimed invention to sequentially evaluate in one frame a first antenna that receives a first preamble symbol and a second antenna that receives a second preamble symbol, where the first and second antennas are switched to an input of a receiver in the mobile device to ascertain a signal quality.

Accordingly, the prior art reference of Lindenmeier is deficient in teaching Applicants' claimed invention as recited in claim 1 that uses preamble symbols for evaluating multiple antennas in one frame period. Lindenmeier cannot

anticipate Applicants' claim 1 and the rejection under 35 U.S.C. §102(e) as being anticipated by Lindenmeier should be removed.

Claims 2-6 depend from base claim 1 and are believed allowable over the art of record for at least the same reasons as claim 1.

Claims 8-10

Applicants' amended claim 8 recites controlling a switch in a transceiver of a mobile device to sequentially provide signals received by at least three antennas to an input of a single receiver where preamble symbols are used to evaluate signal quality for the at least three antennas in a single frame.

As already highlighted with regards to claim 1, Applicants' claim 8 recites using preamble symbols to evaluate signal quality for antennas in a single frame. These features are not taught or suggested by Lindenmeier, and therefore, that prior art reference cannot anticipate Applicants' claim 8. Accordingly, the rejection of claim 8 under 35 U.S.C. §102(e) as being anticipated by Lindenmeier should be withdrawn.

Claims 9-10 depend directly from base claim 8 and are believed allowable based on claim 8 being allowable.

Claims 15-18

The Office Action dated September 20, 2005 does not list claims 15-18 as pending in the application. However, claims 15-18 have not canceled and are still pending in the patent application.

Applicants' claim 15 recites a Network Interface Card (NIC) having at least three antennas coupled through a switch to an input of a single receiver in a mobile device. A processor is coupled to the single receiver to compare quadrature signals that are demodulated from preamble symbols sequentially received by the at least three antennas, wherein the processor selects an antenna that provides a highest quality signal.

Again, Lindenmeier does not teach using preamble symbols received by multiple antennas to select an antenna that provides a highest quality signal. The claimed features of Applicants' claim 15 are not found in the prior art

reference of Lindenmeier. Therefore, that reference does not make Applicants' claim 15 unpatentable.

Claims 16-18 depend directly from base claim 15 and are believed allowable based on claim 15 being allowable.

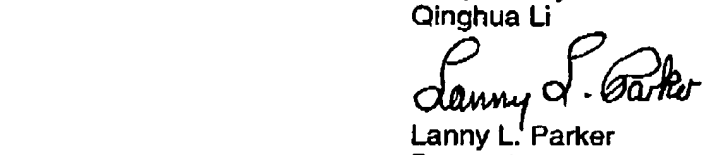
Conclusion

The foregoing is submitted as a full and complete response to the Office Action, and reconsideration of the rejections is requested. It is submitted that claims 1-6, 8-10 and 15-18 are in condition for allowance. Allowance of these claims is earnestly solicited.

Should it be determined that a fee is due under 37 CFR §1.16 or 1.17, or any excess fee has been received, please charge that fee or credit the amount of overcharge to deposit account #50-0221.

If the Examiner believes that there are any informalities that can be corrected by an Examiner's amendment, a telephone call to the undersigned at (480) 715-5388 is respectfully solicited.

Respectfully submitted,
Qinghua Li



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